

October 26, 2004

MEMORANDUM TO: Michael Lesar, Chief
Rules and Directive Branch
Division of Administrative Services
Office of Administration

FROM: Charles E. Ader, Director **/RA/**
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

SUBJECT: FEDERAL REGISTER NOTICE OF PUBLIC WORKSHOP FOR
APPENDIX C (DRAFT REGULATORY GUIDE DG-1138), "NRC
STAFF REGULATORY POSITION ON ANS EXTERNAL
HAZARDS PRA STANDARD" TO REGULATORY GUIDE 1.200
FOR TRIAL USE

Attached is the *Federal Register Notice* of a public workshop on draft Appendix C (Draft Regulatory Guide DG-1138) to Regulatory Guide 1.200. DG-1138 was issued for public comment. The preliminary agenda for the workshop is also attached for information purposes.

Attachments: As stated

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DATE	10/15/2004		10/15/2004		10/25/2004		10/26/2004	

NUCLEAR REGULATORY COMMISSION

Draft Appendix C (DG-1138) to Regulatory Guide 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities" Workshop

The U.S. Nuclear Regulatory Commission (NRC) has issued draft Appendix C, "NRC Staff Position on ANS External Hazards PRA Standard" in August 2004. This Appendix will be part of Regulatory Guide 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities" which was issued for trial use. The Appendix C was issued for public comment on August 31, 2004, and is available under ADAMS Accession Number ML042430314. Revision 1 to RG 1.200, which will include a final draft Appendix C, will be issued next year for public comment. Regulatory Guides (RGs) are developed to describe and make available to the public such information as methods acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and data needed by the staff in its review of applications for permits and licenses.

This draft Appendix C is being developed to provide the staff's preliminary position on the American Nuclear Society, (ANS) Standard, External-Events Probabilistic Risk Assessment (PRA) Methodology. This draft Appendix C has not received complete staff approval and does not represent an official NRC staff position. It is the NRC's intent to update Appendix C when a revised ANS standard on external events is published. Therefore, if a revision of the current ANS standard impacts the staff position, this Appendix C will be revised.

ATTACHMENT

The NRC will conduct a workshop on November 9, 2004, to be held in room O4B6 at NRC headquarters, 11545 Rockville Pike, Rockville, Maryland. The purpose of the workshop is to facilitate the comment process. In the workshop, the staff will discuss the staff's response to the public comments received and the basis for the staff's position, and answer questions. A preliminary agenda is attached. The staff is also requesting comments on the following general issues and two specific issues. The general issues are:

! The intent was that the ANS standard be seamless with the American Society of Mechanical Engineers (ASME) PRA standard for internal events. However, this has not been achieved for the following reasons:

, In the ASME Standard, the word "shall" is only used in high level requirements, and permissive words such as "should" or "may" are not used in any requirements. The ANS Standard on external-events uses permissive words in both high level and supporting requirements. Permissive words are not to be used because they cannot be used to define a minimum requirement.

, The ANS Standard interprets the use of supporting requirements that cut across capability categories in a different manner from the ASME Standard (see discussion in Section 1.4 of the ANS Standard). In the ASME Standard, a requirement that is the same for more than one capability category, is to be interpreted as a pass/no-pass requirement with no requirement to allocate a capability category.

, The organization of the ANS Standard is different from that of the ASME Standard. In the ASME Standard the applications chapter is Chapter 3, whereas in the ANS Standard it is Chapter 6.

Some definitions are not consistent with those in the ASME Standard.

- ! The staff considers the use of explanatory notes is helpful in principle. However, several of the notes contain what the staff interprets as requirements (see example, SR WIND-A1).
- ! The staff has identified several missing supporting requirements. These include, for each of the hazards, requirements to identify the Structures Systems and Components (SSCs) that are critical to plant safety, SSCs that are vulnerable to the hazard being evaluated, identification of specific failure modes, and identification of the modification of PRA logic to model these failures.

In addition to these general issues, there are two specific issues on which the staff requests comment.

- ! Section 3.4 of the ANS Standard addresses screening of external hazards. In Section 3.4.2, three fundamental (sic) quantitative screening criteria are introduced, that focus on core damage frequency (CDF). The last paragraph recognizes that large early release frequency (LERF) should also be considered in the screening but does not suggest additional requirements. One approach is to lower the numerical criteria (e.g., in REQ.EXT-C1) to result in screening at a CDF of 1E-07 rather than 1E-06. Is this an acceptable approach, or are there alternative approaches based on a more qualitative approach dealing with the releases?

! Appendix D in the ANS Standard is a nonmandatory appendix that provides guidance on uses of a seismic margins assessment with enhancements. The seismic margin approach, while can be used for certain applications, is not a PRA. Since this standard is providing requirements for an external events PRA, the staff takes objection to this appendix. The staff believes the appropriate place to provide its position on this appendix would be in the NUREG being prepared by the Office of Nuclear Regulatory Research addressing the use of non-PRA methods in risk-informed decision-making. Is this an appropriate strategy?

For information about the draft Appendix C and the workshop, contact Mr. A. Singh at (301) 415-0250; email axs3@NRC.GOV.

Although a time limit is given for comments on this draft Appendix C, comments and suggestions in connection with items for inclusion in guides, currently being developed, or improvements in all published guides, are encouraged at any time.

(5 U.S.C. 552(a))

Dated at Rockville, Maryland, this 26th day of October 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Charles E. Ader, Director
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

PUBLIC WORKSHOP ON DRAFT APPENDIX C
“NRC STAFF REGULATORY POSITION ON
ANS EXTERNAL HAZARDS PRA STANDARD” TO
REGULATORY GUIDE 1.200 FOR TRIAL USE
“AN APPROACH FOR DETERMINING
THE TECHNICAL ADEQUACY OF
PROBABILISTIC RISK ASSESSMENT RESULTS

FOR RISK INFORMED ACTIVITIES”

**NOVEMBER 9, 2004–10:00am-3:00pm
Room O-4B6**

Preliminary Agenda

10:00am-10:15am	Introduction NRC
10:15am-10:30am	Overview of Appendix C NRC
10:30am-11:00am	Overall, general staff's response to public
comments	
11:00am-12:00Noon	Detailed discussion on specific Comments
12:00 Noon-1:00pm	LUNCH
1:00pm-2:00pm	Detailed discussion (cont'd)
2:00-2:45pm	Open Discussion
2:45pm-3:00pm	Wrap-up
3:00pm	ADJOURN